DOCUMENT RESUME

ED 128 570 CE 007 564

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|---|---|
| TITLE | Appliance Repair; Radio and Television. Trade and Industrial Education Trade Preparatory Training Guide. |
| INSTITUTION | Nebraska State Dept. of Education, Lincoln. Div. of Vocational Education. |
| PUB DATE | [73] |
| NOTE | 54p.; For related documents see CE 007 553-569. Appendix A, Application for Employment, may not reproduce well because of small type |
| EDRS PRICE | MF-$0.83 HC $3.50 Plus Postage. |
| DESCRIPTORS | *Appliance Repairing; Behavioral Objectives; Curriculum; Curriculum Design; *Curriculum Guides; Electrical Occupations; Electricity; Electronics; *Job Skills; Occupational Information; Radio; Secondary Education; State Curriculum Guides; *Task Performance; Television; Television Repairmen; *Trade and Industrial Education |
| IDENTIFIERS | Nebraska |

ABSTRACT

One of a series of curriculum guides prepared for the electricity/electronics occupations cluster, this guide identifies the essentials of the appliance repair and radio and television trade as recommended by successful servicemen. An instructional program based upon the implementation of the guide is expected to prepare a student to adequately perform entry level tasks required of servicemen or to enter a post-secondary technical or apprenticeship program in appliance repair and radio and television where additional depth can be realized. Trade tasks or information are listed in chart form in separate content sections for appliance repair and radio and television. Lists in each section are under such subheadings as safety, special tools and materials, warranties and service policies, merchandising and warehousing, basic thermodynamics, test and measuring equipment, and labor and replacement/repair estimating. Space is provided on the charts to record for each item the date completed, teaching methods used, and teaching materials used. Also included are a list of teacher responsibilities, sources of occupational information, recommended tests and references, and a chart depicting the total electricity/electronics occupational curriculum. A typical application for employment and a sample trade and industrial education injury report are appended. (HD)

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ED128570

TRADE AND INDUSTRIAL EDUCATION

TRADE PREPARATORY TRAINING GUIDE

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# APPLIANCE REPAIR
# RADIO AND TELEVISION

NEBRASKA DEPARTMENT OF EDUCATION
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CG-007-564

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## DEFINITIONS USED IN THIS GUIDE

**Major Occupational Group**

A grouping of similar and related occupational area clusters. These groups include occupations that have been determined to be the most relevant and pertinent for inclusion in vocational education in Nebraska.

**Occupational Area Clusters**

These clusters are distinguishable in terms of similar work performed, materials used, products produced, and/or services rendered. They include a wide variety of common occupational skills and knowledge.

**Occupation**

The career or employment engaged in by an individual for remuneration. This activity includes technical competencies and related technical information often referred to as one's vocation.

**Technical Competency**

The specific tasks required for a vocational trade and industrial graduate to perform successfully at the entry level in an occupational area. These technical competencies apply to the psychomotor domain and include elements which emphasize motor skills such as: operate a machine; measure; etc.

**Related Technical Information**

The information the entry level worker must know in order to make appropriate trade decisions which will allow him to adequately perform the tasks or technical competencies of his occupation. This information applies to the cognitive domain and includes elements which are intellectual outcomes such as: knowledge and understanding.

**Related General Information**

Information which is desirable and good for the tradesman to know but which is not necessary to do his work properly; information that is nice to know, such as the history and development of his trade.

**Related Guidance Information**

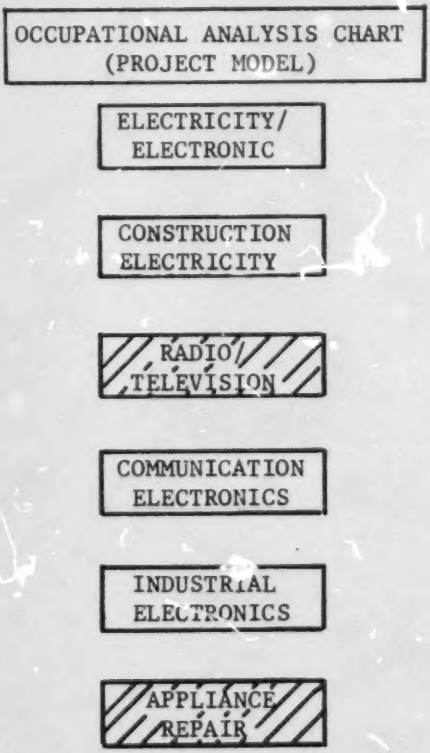
Information that helps the student choose, prepare for, secure, hold, and make progress in an occupation.

**Entry Level**

The technical competencies and related technical information deemed necessary by industry for obtaining and holding a job in a specific occupational area. This level of employment includes the technical competencies and related technical information that will be utilized by the employee within the first year of employment.

## OCCUPATIONAL ANALYSIS CHART

The chart on this page shows Appliance Repair and Radio and Television as it relates to other occupations within the Electricity/Electronics occupations cluster. This guide is concerned with Appliance Repair and Radio and Television only. Other guides have been prepared for each of the occupations found in this chart and are available through the Nebraska State Department of Education.



## INTRODUCTION

This curriculum guide has been prepared with the help of competent craftsmen in the electricity/electronics trades. The funds that made this guide a reality were provided through a federal research grant in cooperation with the Nebraska State Board for Vocational Education and sponsored by the Nebraska Research Coordinating Unit.

Curriculum guides have been prepared for several trade and industrial occupational clusters from which high school teachers can develop appropriate occupational related experiences for their students. The major occupational groups, occupational area clusters, and occupations are shown in graphic form on pages of this guide.

Selection of trades within four major occupational groups have been made based on a three year survey by the Nebraska Research Coordinating Unit on needs of Nebraska business and industry. This study has identified the occupations with the greatest need for employees. A related set of curriculum guides have been prepared for these occupations.

Guidance Information

The U. S. Department of Labor has developed an extremely helpful book entitled, "Occupational Outlook Handbook". This annual publication provides a very complete description of the activities of the persons employed in the occupations represented in the Nebraska trade and industrial curriculum guides. Information concerning current and future opportunities is a major portion of this publication. Inexpensive reprints in booklet form that describe individual occupations are available through the Department of Labor. These booklets should be used by trade and industrial teachers and school guidance counselors for the most up-to-date guidance information about a particular occupation.

A listing of these reprints from the "Occupational Outlook Handbook", the order number and price per copy is listed below for those occupations in the occupational area cluster of "Electricity/Electronics Occupations".

| Number | Title | Price |
|---|---|---|
| 1700-86 | Appliance Servicemen | .10 |
| 1700-95 | Television & Radio Service Technicians | .10 |
| 1700-91 | Maintenance Electricians Industrial Machinery Repairmen, Millwrights | .15 |
| 1700-130 | Electric Power Industry Power Plant Occupations, Transmissions and Distribution Occupations, Customer Service Occupation | .15 |
| 1700-134 | Telephone Industry, Central Office Craftsmen, Central Office Equipment Installers, Linemen & Cable Splicers, Telephone & PBX Installers, and Repairmen | .15 |

## The Appliance Repair and Radio and Television Guide

This guide uses the title Appliance Repair and Radio and Television as the most logical descriptive term for identifying a particular related group of workers. Identification of specific job titles within this group should be determined by referring to the "Dictionary of Occupational Titles". The USOE classification system for coding instructional programs has assigned 637.281, 723.381, and 827.281 to the instructional program, Appliance Repair. The USOE classification system for coding instructional programs has assigned 720.281 to the instructional program, Radio and Television.

The information within this guide identifies the essentials of the appliance repair and radio and television trade as recommended by the successful servicemen. An instructional program based upon the implementation of this guide will prepare a student to adequately perform entry level tasks required of servicemen or to enter a post-secondary technical or apprenticeship program in appliance repair and radio and television where additional depth can be realized.

The tasks and/or competencies identified within these covers are those agreed upon by a jury of reputable Nebraska servicemen. A separate group of persons directly employed within this trade in Nebraska have further verified these tasks and/or competencies. Jury members, tradesmen, and educators who contributed toward the development of content for this guide are listed in the front.

Course offerings in trade and industrial education in Nebraska are to be organized within two period blocks of time each day, five days a week. Time is to be set aside for classroom instruction directly related to manipulative laboratory instruction. The remainder of the student's school day is to be utilized for general education subjects.

## USE OF THIS GUIDE

The use of curriculum guides for trade and industrial education in Nebraska secondary schools may vary greatly, depending upon the depth and breadth of each school district's vocational program. Large school districts, for example, may utilize one particular curriculum guide to develop a course in a trade area such as appliance repair and radio and television. A small school district may, on the other hand, incorporate several curriculum guides to develop a course in the electricity/electronics occupational cluster.

The manipulative content identified in this guide is deemed necessary for inclusion in a course that is designed to prepare entry level appliance servicemen. While not all secondary school facilities in Nebraska are equipped to expose students to all of this content through hands-on experience, it is assumed that this content will through some media become related technical information. This will insure inclusion of all content and provide at least discussion level understanding.

This guide is written with the assumption and expectation that the related technical information necessary to perform technical competencies will be an integral part of instruction. Thus, occupational decisions that must be made by an entry level worker will be developed along with each related manipulative activity.

The instructor who uses this guide is responsible for including the identified related technical information as well as the identified manipulative tasks. He is also responsible for the identification of competencies pertaining to general and guidance information even though this information is not specifically identified for him.

Definitions for various terms used in this guide are presented in the front.

## TEACHER RESPONSIBILITIES*

1. Use the American Vocational Association National Safety Council's "National Standards School Shop Safety Inspection Check List" for shop safety inspections. (Available from American Vocational Association, 1510 "H" Street, N.W., Washington, D.C. 20005)

2. Use safety check list to assure safe factors exist.

3. Require students to report ALL accidents to instructor.

4. Keep complete records of ALL accidents on file.

5. Report ALL accidents to the school administrator.

6. Develop safety consciousness in the students through teacher example--always doing things in the safe way.

7. Give shop demonstrations stressing safe use of machines.

8. Give shop demonstrations stressing safe use of hand tools.

9. Provide instruction on what to do in case of an accident.

10. Develop information sheets dealing with the safe use of specific machines.

11. Give demonstrations on the proper use and care of personal protective devices.

*These responsibilities are necessary for inclusion in all trade and industry programs in the State of Nebraska.

12. Develop information sheets dealing with the general safety rules for the trade.

13. Enclose all gears, moving belts, and other power transmission devices with permanent guards.

14. Prohibit students from operating machines when instructor is not present.

15. Prohibit the removal of guards and safety devices, even for a brief period, without the approval of the instructor.

16. Prohibit more than one operator from using a machine at one time.

17. Determine personal liability factors and liability coverage afforded through your school.

18. Provide for the bulk storage of flammable materials.

19. Mark the location of fire-fighting equipment.

20. Post instructions and inform students of building evacuation procedures.

21. Require the wearing of appropriate eye protection as specified by the State of Nebraska eye safety regulations.

22. Keep tools sharp, clean and in good working condition.

23. All shop personnel should be thoroughly familiar with the location of fire extinguishers and the type fire for which each extinguisher is designed.

APPLIANCE REPAIR CONTENT
(Identified Trade Tasks of Information)

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| SAFETY | | | |
| Exercise care in using and storing inflammables and combustibles. | | | |
| Provide adequate ventilation when using solvents. | | | |
| Provide appropriate safety precautions to prevent injury to himself and others as appliances undergo operation, testing, and maintenance. | | | |
| Identify fire extinguishers and their use. | | | |

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Recognize safe and unsafe areas-avoid areas of possible danger. | | | |
| Recognize safe and unsafe methods or practices-avoid those which may be dangerous. | | | |
| Select appropriate clothing and safety apparel. | | | |
| Exercise care in handling and using testing/measuring instruments. | | | |
| Exercise care in handling and using hand and power tools. | | | |
| Correct unsafe conditions of tools and test/measuring instruments. | | | |

Recognize and report unsafe conditions to immediate supervisor.

Follow federal occupational safety laws relating to appliance repair occupations.

Exercise competent communication skills with public.

Exercise proper use of telephone communication.

Prepare appliance defect/ repair reports.

Explain basic controls and operations of appliances to customers.

Write business letters.

Keep records specified by employer.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| CUSTOMER AND JOB RELATIONS | | | |
| Establish and maintain a high quality of personal workmanship. | | | |
| Practice a pleasant attitude toward customers and fellow workers. | | | |
| Apply concepts of good dress and grooming. | | | |
| Be punctual. | | | |
| Work with minimum immediate supervision. | | | |
| Keep facilities clean and orderly. | | | |

Develop and follow work plans or schedules.

Understand and follow through on instructions or directions.

MERCHANDISING AND WAREHOUSING

Practice principles of good merchandising for increased sales and service.

Practice principles of warehousing merchandise and parts.

LABOR AND REPLACEMENT/ REPAIR ESTIMATING

Question customer about performance of appliance.

Estimate time and personnel needed to complete a job.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Estimate replacement/ repair costs. | | | |
| Estimate total cost of a job. | | | |
| Explain to customer type of payment due upon completion of a job. | | | |
| MATHEMATICS | | | |
| Solve problems using basic mathematics. | | | |
| Apply algebraic functions. | | | |
| BASIC CHEMISTRY | | | |
| Recognize types of corrosion. | | | |

Identify causes of corrosion.

Eliminate sources of corrosion.

Recognize effects of detergents, bleaches, etc.

Recognize effects of electrolysis.

Understand causes of electrolysis.

Perform preventive maintenance to limit effects/sources of electrolysis.

Know and utilize laws of combustion.

BASIC ELECTRICITY

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Possess and utilize electrical symbology and terminology. | | | |
| Interpret circuit drawings and schematics. | | | |
| Identify sources and production methods of electricity. | | | |
| Apply Ohm's law. | | | |
| Identify and apply DC circuit concepts. | | | |
| Identify and apply AC circuit concepts. | | | |
| Possess and utilize laws of magnetism and electromagnetism. | | | |

BASIC PHYSICS

Apply principles of mechanical advantage.

Apply principles relating to heat of combustion.

Apply principles relating to heat of compressions.

Apply principles relating to heat of vaporization.

BASIC THERMODYNAMICS

Analyze effects of compression of gases in refrigeration.

Analyze effects of vaporization in refrigeration.

Analyze effects of liquid and gas expansion.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Analyze effects of temperature. | | | |
| MECHANICAL | | | |
| Apply principles of belt and pulley arrangements. | | | |
| Apply principles of gears and drive trains. | | | |
| Identify types of lubricants. | | | |
| Select proper lubricants. | | | |
| Apply lubricants. | | | |
| ELECTROMECHANICAL | | | |
| Possess and apply the theory and structure of motors. | | | |

Possess and apply the theory and structure of transmissions.

Possess and apply the theory and structure of timers.

Possess and apply the theory and structure of solenoids.

Possess and apply the theory and structure of heating elements and burners.

Possess and apply the theory and structure of gas ignition systems.

Possess and apply the theory and structure of appliance mechanisms including:

compressors

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| fans and blowers | | | |
| pumps | | | |
| Know and utilize the theory and operation of: | | | |
| timers | | | |
| motor speed controls | | | |
| switches | | | |
| thermostats | | | |
| humidistats | | | |
| overload protection devices | | | |
| temperature control devices | | | |

water level controls

relays

water control valves

gas control valves

TEST AND MEASURING EQUIPMENT

Use and maintain:

V.O.M.

VTVM

amprove

volt-wattmeter

continuity checker

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| test lamp | | | |
| pyrometer | | | |
| refrigerant manifolds with gauges and hoses | | | |
| temperature recorder | | | |
| refrigeration thermometer | | | |
| oven thermometer | | | |
| capacitance checker | | | |
| oscilloscope | | | |
| SPECIAL TOOLS AND MATERIALS | | | |
| Identify and properly use: | | | |

fuse puller

soldering aids

de-soldering aids

relay/contact service tools

solder

relay/contact cleaner

soldering flux and paste

soldering irons

soldering guns

soldering pencils

wire stripper

electrical tape

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| solderless connectors | | | |
| solderless connector crimping tool | | | |
| fish tape and wire puller | | | |
| GENERAL COMPETENCIES | | | |
| Use common hand tools. | | | |
| Disassemble-assemble electro-mechanical appliances. | | | |
| Cut and strip wire. | | | |
| Splice wires. | | | |
| Install optional equipment specified by customer or manufacturer. | | | |

Unsolder-solder components within appliances.

Remove-install electro-mechanical appliances.

Operate hand and power drills.

Locate defective components.

Replace defective components.

Repair defective components.

Clean parts and appliances.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Inspect and install grounding devices on appliances. | | | |
| Inspect appliances for wear/malfunctioning. | | | |
| Adjust and calibrate appliances. | | | |
| Adjust and calibrate test and measuring instruments. | | | |
| Analyze test data. | | | |
| Follow manufacturer's specifications. | | | |
| Apply electrical theory. | | | |

Observe functioning circuit for defects.

Interpret and utilize drawings, specifications, manufacturer's catalogues, service manuals, schematics and handbooks.

Perform maintenance according to federal, state, local electrical codes.

RADIO AND TELEVISION
(Identified Trade Tasks or Information)

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| SAFETY | | | |
| Provide adequate ventilation when using solvents. | | | |
| Provide appropriate safety precautions to prevent injury to oneself and others as appliances undergo operation, testing, and maintenance. | | | |
| Identify fire extinguishers and their use. | | | |
| Recognize safe and unsafe methods or practices - avoid those which may be dangerous. | | | |

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Select appropriate clothing and safety apparel. | | | |
| Exercise care in handling and using testing/measuring instruments. | | | |
| Exercise care in handling and using hand and power tools. | | | |
| Recognize and report unsafe conditions to immediate supervisor. | | | |
| Correct unsafe conditions of tools and test/measuring instruments. | | | |
| COMMUNICATION SKILLS | | | |

Exercise competent communications skills with public.

Exercise proper use of telephone communications.

Prepare appliance defect/repair reports.

Explain basic controls and operations of appliances to customers.

Keep records specified by employer.

CUSTOMER AND JOB RELATIONS

Establish and maintain a high quality of personal workmanship.

Practice a pleasant attitude toward customers and fellow workers.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Apply concepts of good dress and grooming. | | | |
| Be punctual. | | | |
| Work with minimum immediate supervision. | | | |
| Keep facilities clean and orderly. | | | |
| Develop and follow work plans or schedules. | | | |
| Understand and follow through on instructions or directions. | | | |
| BUSINESS PRINCIPLES AND PRACTICES | | | |

Apply principles and practices of business in economics, accounting, marketing, and salesmanship.

WARRANTIES AND SERVICE POLICIES

Comprehend and explain warranty and service policies to customers.

Maintain an up-to-date records system on warranty and service data.

LABOR AND REPLACEMENT/ REPAIR ESTIMATING

Estimate replacement/ repair costs.

Estimate total cost of a job.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Explain to customer type of payment due upon completion of job. | | | |
| MATHEMATICS | | | |
| Solve problems using basic mathematics. | | | |
| Apply algebraic functions. | | | |
| BASIC ELECTRICITY | | | |
| Possess and utilize electrical symbology and terminology. | | | |
| Interpret circuit drawings and schematics. | | | |
| Apply Ohm's Law. | | | |

Identify and apply DC circuit concepts.

Identify and apply AC circuit concepts.

Possess and utilize laws of magnetism and electromagnetism.

BASIC THERMODYNAMICS

Analyze effects of temperature.

Analyze effects of mist coolants on circuit components.

MECHANICAL

Apply principles of belt and pulley arrangements.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Select proper lubricants. | | | |
| Apply lubricants. | | | |
| ELECTROMECHANICAL | | | |
| Possess and apply the theory and structure of appliance mechanisms including: | | | |
| motors | | | |
| timers | | | |
| solenoids | | | |
| Know and utilize the theory and operation of appliance controls including: | | | |

motor speed controls

switches

overload protection devices

antenna rotor and control devices

BASIC ELECTRONICS

Possess and utilize the theory and operation of vacuum tube circuits.

Possess and utilize the theory and operation of transistor circuits.

Possess and utilize the theory and operation of semi-conductors.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| TEST AND MEASURING EQUIPMENT | | | |
| Use and maintain: | | | |
| VOM | | | |
| VTVM | | | |
| wattmeter | | | |
| continuity checker | | | |
| capacitance checker | | | |
| oscilloscope | | | |
| transistor analyzer | | | |
| tube tester | | | |
| RF signal generator | | | |

audio signal generator

sine/square wave generator

television analyst

sweep/marker alignment generator

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CRT tester and rejuvenator

color-bar generator

hi-voltage test probe

signal injector probe

combination audio and RF signal generator

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| vectorscope | | | |
| power supplies | | | |
| SPECIAL TOOLS AND MATERIALS | | | |
| Identify and properly use: | | | |
| tape head cleaner and lubricants | | | |
| tube pin straightener | | | |
| tube and parts extractor | | | |
| fuse puller | | | |
| de-soldering aids | | | |
| nut drivers | | | |

soldering aids

TV service mirror

TV degaussing coil

alignment tools

solder

relay and contact cleaner

spray circuit and component coolants

circuit board repair kit

soldering pencils

soldering irons

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| soldering guns | | | |
| wire stripers | | | |
| tape head demagnetizer | | | |
| GENERAL COMPETENCIES | | | |
| Use common hand tools. | | | |
| Disassemble and assemble electro/mechanical equipment. | | | |
| Cut and strip wire. | | | |
| Splice wires. | | | |
| Install optional equipment specified by customer or manufacturer. | | | |

Unsolder-solder components.

Operate hand and power drills.

Locate defective components.

Replace defective components.

Repair defective components.

Clean equipment or parts.

Adjust and calibrate test/measuring equipment.

Analyze test data.

Follow manufacturer's specifications.

| TRADE TASK OR INFORMATION | DATE COMPLETED | TEACHING METHODS USED | TEACHING MATERIALS USED |
|---|---|---|---|
| Apply electrical theory. | | | |
| Apply electron theory. | | | |
| Observe functioning equipment for defects. | | | |
| Interpret and utilize drawings, specifications, manufacturer's catalogues, service manuals, schematics and handbooks. | | | |

## Appendix A

One of the primary objectives of trade and industrial education is the successful placement of students completing course work in a specific occupation. The following sample application form is included in this guide with the recommendation that the preparation of such forms become a necessary activity for students in all trade and industrial education courses.

### APPLICATION FOR EMPLOYMENT

**PERSONAL INFORMATION**

DATE _____ SOCIAL SECURITY NUMBER _____

NAME _____ (LAST / FIRST / MIDDLE)

PRESENT ADDRESS _____ (STREET / CITY / STATE)

PERMANENT ADDRESS _____ (STREET / CITY / STATE)

PHONE NO. _____ OWN HOME _____ RENT _____ BOARD _____

DATE OF BIRTH _____ HEIGHT _____ WEIGHT _____ COLOR OF HAIR _____ COLOR OF EYES _____

MARRIED _____ SINGLE _____ WIDOWED _____ DIVORCED _____ SEPARATED _____

NUMBER OF CHILDREN _____ DEPENDENTS OTHER THAN WIFE OR CHILDREN _____ CITIZEN OF U. S. A. YES ○ NO ○

IF RELATED TO ANYONE IN OUR EMPLOY, STATE NAME AND DEPARTMENT _____ REFERRED BY _____

**EMPLOYMENT DESIRED**

POSITION _____ DATE YOU CAN START _____ SALARY DESIRED _____

ARE YOU EMPLOYED NOW? _____ IF SO MAY WE INQUIRE OF YOUR PRESENT EMPLOYER _____

EVER APPLIED TO THIS COMPANY BEFORE? _____ WHERE _____ WHEN _____

| EDUCATION | NAME and LOCATION OF SCHOOL | YEARS ATTENDED | DATE GRADUATED | SUBJECTS STUDIED |
|---|---|---|---|---|
| GRAMMAR SCHOOL | | | | |
| HIGH SCHOOL | | | | |
| COLLEGE | | | | |
| TRADE, BUSINESS OR CORRESPONDENCE SCHOOL | | | | |

SUBJECTS OF SPECIAL STUDY OR RESEARCH WORK _____

WHAT FOREIGN LANGUAGES DO YOU SPEAK FLUENTLY? _____ READ _____ WRITE _____

U. S. MILITARY OR NAVAL SERVICE _____ RANK _____ PRESENT MEMBERSHIP IN NATIONAL GUARD OR RESERVES _____

(CONTINUED ON OTHER SIDE)

**FORMER EMPLOYERS** (LIST BELOW LAST FOUR EMPLOYERS, STARTING WITH LAST ONE FIRST.)

| DATE MONTH AND YEAR | NAME AND ADDRESS OF EMPLOYER | SALARY | POSITION | REASON FOR LEAVING |
|---|---|---|---|---|
| FROM | | | | |
| TO | | | | |
| FROM | | | | |
| TO | | | | |
| FROM | | | | |
| TO | | | | |
| FROM | | | | |
| TO | | | | |

**REFERENCES:** GIVE BELOW THE NAMES OF THREE PERSONS NOT RELATED TO YOU, WHOM YOU HAVE KNOWN AT LEAST ONE YEAR.

| | NAME | ADDRESS | BUSINESS | YEARS ACQUAINTED |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

**PHYSICAL RECORD:**

LIST ANY PHYSICAL DEFECTS

WERE YOU EVER INJURED? GIVE DETAILS

HAVE YOU ANY DEFECTS IN HEARING? IN VISION? IN SPEECH?

IN CASE OF EMERGENCY NOTIFY

NAME ADDRESS PHONE NO.

I AUTHORIZE INVESTIGATION OF ALL STATEMENTS CONTAINED IN THIS APPLICATION. I UNDERSTAND THAT MISREPRESENTATION OR OMISSION OF FACTS CALLED FOR IS CAUSE FOR DISMISSAL. FURTHER, I UNDERSTAND AND AGREE THAT MY EMPLOYMENT IS FOR NO DEFINITE PERIOD AND MAY, REGARDLESS OF THE DATE OF PAYMENT OF MY WAGES AND SALARY, BE TERMINATED AT ANY TIME WITHOUT ANY PREVIOUS NOTICE.

DATE SIGNATURE

**DO NOT WRITE BELOW THIS LINE**

INTERVIEWED BY DATE

**REMARKS:**

| | | | |
|---|---|---|---|
| NEATNESS | | CHARACTER | |
| PERSONALITY | | ABILITY | |

HIRED FOR DEPT. POSITION WILL REPORT SALARY WAGES

APPROVED: 1. 2. 3.

EMPLOYMENT MANAGER DEPT. HEAD GENERAL MANAGER

## Appendix B

One of the most important parts of any trade and industrial education course is a safety program. The following form is recommended for use in courses of this type.

**SAMPLE**
**TRADE AND INDUSTRIAL EDUCATION**
**INJURY REPORT* ****

Student injured _____ Date _____

Shop in which accident occurred _____ Time _____

Instructor in charge _____

Nature of injury _____

_____

First aid administered _____

_____ By whom? _____

Cause of injury _____

_____

Could injury have been prevented? ____ How? _____

_____

Action taken or recommendations made to prevent recurrence _____

Remarks: _____

_____

_____

Signed _____
(Person making report)

Witnesses: _____

Names _____
and
Addresses _____

*Complete in Duplicate
**File one copy in office

RECOMMENDED TEXTS AND REFERENCES

APPLIANCE REPAIR

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Mileaf, Harry Electronics One-Seven. New York: Hyden Book Bompany, Inc.

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Stevens, Marion P. Electrical Appliance Servicing Group Instruction. Columbia, Missouri: Missouri University, Sept. 1966.

U.S. Department of Labor Job Corps Training Standard for Electrical Appliance Repairman. Washington, D.C.

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Whirlpool Corp. Basics of Room Air Conditioners. Benton Harbor Michigan, 1971.

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------Sugguested Guidelines for Developing A High School Trade and Industrial Program In Small Appliance Repair. Columbus, Ohio: Ohio State University, 1968.

------Vocational Instructional Materials for Trade and Instructional Materials Occupations. Washington, D.C.: U.S. Government Printing Office, Stock Number 1780-0842, 1972. (This book of curriculum materials lists innumerable sources of great value to the T & I teacher. These free or inexpensive materials have been printed by the U.S. Government Printing Office. Your copy of this catalog will cost $1.50 and is available from the following address:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20000)

RECOMMENDED TEXTS AND REFERENCES

RADIO AND TELEVISION

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------ A Basic Plan for the Organization and Management of Instruction in Vocational Radio and Television. Jackson, Mississippi: Mississippi State Department of Education, May 1967.

------ Electronic Technician/Dealer. New York: Harcourt Brace Jovanovich Publication.

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